

REMARKS ON CLAIM AMENDMENTS

REVIEW

The current application sets forth Claims 1-23, of which claims 1, 8, 14, 17, and 20 are independent claim(s). Presently, no claims have been indicated as allowed.

Claims 1-7 and 17-23 are rejected under 35 U.S.C. §101 as not being patentable subject matter. Claims 8 through 13 have not been indicated as specifically rejected nor have they been indicated as allowed.

Claims 8 through 13

Claims 8 through 13 have not been indicated as specifically rejected nor have they been indicated as allowed. **Clarification is requested.**

35 U.S.C. §101

The Rejection of Claims 1 through 7, and 17 through 23 is in error. Examiner has still not made a prima case. A conclusory statement that the claims are directed to a judicial exception without attendant reasoning and factual support is not sufficient to maintain the rejection under Section 101. Nonetheless, Applicant submits that the result of the process of claims 1 through 7 and 17 through 23 is a useful, tangible and concrete result.

Examiner is referred to *AT&T Corp. v. Excel Communications, Inc.*, 172, F.3d 1352 (Fed. Cir. 1999). In *AT&T*, the infringement defendants challenged the validity of the

patent under 35 U.S.C. §101 as attempting to claim a mathematical algorithm.¹ *See id.*, at 1354-5. The district court agreed that the claims were directed to a mathematical algorithm, and granted summary judgment in favor of the defendant. *See id.* On appeal the Federal Circuit Court of Appeals reversed.

The Court reviewed the law with respect to the application of mathematical algorithms in process claims. It noted that it is a long established principle that laws of nature are excluded from patent protection. *See id.* at 1356. However, “a process that applies a mathematical equation to a new and useful end ‘is not barred . . . by §101.’” *Id.* at 1357 (quoting *Diehr*, 450 U.S. 188). Specifically, a claim may not preempt the use of a mathematical algorithm, but may claim the application of the algorithm as an element or limitation. *See id.* Thus, the analysis of the claim under §101 must seek to determine the scope of the claim to determine whether it simply claims a mathematical algorithm or applies a mathematical algorithm. *See* MPEP 2106. *See also, In re Alappat* 33 F.3d 1526, 31 USPQ 1545 (Fed. Cir. 1994)(“The ultimate issue [is] whether the claim as a whole is drawn to statutory subject matter”).

It is clear from both the claims and the written description of the present application that what is claimed is a process that ultimately determines a “net flow” which is a characteristic feature of sewer networks and necessary for those responsible for operating such networks to know in order to insure their proper operation. *See* App. Ser. No. 10/757,446, page 1. Part of this determination is the calculation of “travel time” of the substance flowing through

¹ The Final Action only indicates that it is believed the present claims falls into a “judicial exception;” however, there is no indication as to which judicial exception. It will be noted that the judicial exceptions are laws of nature,

the network. Thus, the result is useful. As set forth in the guidelines and the MPEP 2106, to assess whether a result is useful, it must satisfy the utility requirement. *See* MPEP 2106. A “tangible result” means that process claim, as set forth above, “must set forth a practical application of the “judicial exception” to produce a real-world result.” MPEP 2106. As set forth in the written description, the determination of “travel time” is a real-world result, necessary for sewer network engineers for purposes of monitoring the sewer system. Accordingly, it is submitted that the result claimed in Claims 1 and 17 is useful, and tangible.

The result of a travel time or transport time is also concrete under the MPEP. MPEP 2106 provides:

Another consideration is whether the invention produces a "concrete" result. Usually, this question arises when a result cannot be assured. In other words, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. The opposite of "concrete" is unrepeatable or unpredictable.

In the present case, those skilled in the relevant art would appreciate that the result of determining a travel time or a transport time as claimed is repeatable and predictable. Accordingly, the result of a travel time or transport time is concrete. If it is not, the Office has not provided such evidence as it is its burden to do.

abstract ideas and natural phenomena. *See Diamond v. Diehr*, 450 U.S. 175, 185, 101 S.Ct. 1048, (1981), and further that the Examiner believes that Claims 1 and 17 “cover” a law of nature, namely, a mathematical algorithm.

Accordingly, Applicant respectfully submits that it has shown that Claims 1, and 17, and their dependent claims, are well within Section 101 and are directed to patentable subject matter. A notice of allowance is therefore, requested.

CONCLUSION

In view of the foregoing comments, Applicants respectfully request withdrawal of the current ground of rejection, and the issuance of a formal Notice of Allowance. The Examiner is **invited to telephone the undersigned** at his convenience should only minor issues remain after consideration of this amendment in order to permit early resolution of the same.

Respectfully submitted,


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